DOCUMENT RESUME

ED 021 335 24 EA 001 584

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DISSATISFACTION WITH COLLEGE AND THE COLLEGE DROPOUT: A TRANSACTIONAL APPROACH. FINAL REPORT.

Princeton Univ., N.J.
Spons Agency- Office of Education (DHEW), Washington, D.C. Bureau of Research.
Bureau No- BR-6-8421
Pub Date Aug 67
Contract- OEC-1-7-008421-0479
Note- 47p.
EDRS Price MF-$0.25 HC-$1.96
Descriptors- COLLEGE ENVIRONMENT, COLLEGES, *COLLEGE STUDENTS, *DROPOUT ATTITUDES, DROPOUT IDENTIFICATION, DROPOUT PREVENTION, *DROPOUT RESEARCH, *DROPOUTS, FACTOR ANALYSIS, INTERACTION PROCESS ANALYSIS, *STUDENT COLLEGE RELATIONSHIP

Based upon the rationale that human behavior can be best understood in terms of the interaction between the individual and the environment, student dissatisfaction with college and probability of dropping out of college were measured by administering a self-scaling instrument called TAPE (Transactional Analysis of Personality and Environment) to 3,728 students in 21 colleges across the country. The study demonstrated TAPE's utility for analysis in three areas: (1) Similarities and differences among colleges, (2) sources of strain within a college, and (3) sources of stress for individual students. Utilizing semantic differential techniques, TAPE required that six concepts be judged on 52 scales: College, self, students, faculty, administration, and ideal college. For each college these ratings were correlated with six satisfaction items: Thinking of dropping out for nonacademic reasons, similarity of values to the faculty, agreement with administrative rules and regulations, feeling out of place at the college, academic satisfaction, and nonacademic satisfaction. A three-mode factor analysis of the data is explained and the study's implications are outlined for selection of a college and for regarding the college as a social system. (JK)

BR-6-8421
PA-24

FINAL REPORT
Project No. 6-8421 - 24
Contract No. OEC-1-7-008421-0479

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August 1967

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

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ED021335
EA 001 584

Dissatisfaction With College and the College Dropout: A Transactional Approach

Project No. 6-8421

Contract No. OEC - 1-7-008421-0479

LAWRENCE A. PERVIN

August, 1967

The research reported herein was performed pursuant to a contract with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

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Acknowledgments

Appreciation is hereby expressed to the U.S. Office of Education which made funds available for this research and to the representatives of the twenty-six colleges who cooperated in this research endeavor. The TAPE questionnaire was jointly developed by the author and D. B. Rubin as described in an earlier publication. The analyses reported here have greatly profited from the contributions of Roy Lilly, Tom Pears, Oren Merrill, and Jan Gibson.

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INTRODUCTION

Past studies of the college dropout have generally dealt with student characteristics, with a few studies of institutional characteristics (8, 20). Largely neglected has been the area of student - environment interaction, though there is evidence that the analysis of such interaction is crucial to our understanding of all phases of the learning process (3, 10, 13, 14, 20).

Beyond some few common characteristics, colleges are vastly different from one another (24). Furthermore, there is evidence that students generally select a college whose image fits their own needs, providing for a match between student and college environment (18). In many cases, however, students are forced to choose on some other basis, have a distorted image of their preferred college or have an unrealistic image of their own needs. Each of these means a lack of fit between the needs of the individual and the press or sources of reward and frustration in the college environment. Stern (24) reports that at the University of Chicago a minority group of authoritarians contributed most heavily to the withdrawal rate. Similarly, Funkenstein (7) has tied the issue of fit between student needs and college attributes to dropouts from medical schools.

The theoretical rationale for the research reported here is that human behavior can be best understood in terms of the interaction between the individual and his environment. A recent review of the literature by the author (22) suggests the importance of understanding performance and satisfaction in terms of such interaction analyses. It is important to recognize that while instruments have been developed to measure the college environment (1, 18, 24), they do not provide for an analysis in terms of individual - environment interaction. The Activities Index and College Characteristics Index were developed to follow Murray's need - press system, but they have not been used in this way and it is not clear that the need and press scales on the instruments are comparable. Also, while the AI and CCI include items relevant to various parts of a college environment (students, faculty, administration), analyses in terms of the interactions or transactions among these parts are not generally reported.

The research reported here investigates student dissatisfaction with college and reported probability of dropping out of college in relation to student - college interaction. This

research emphasizes the individual's perception of his environment (Murray's beta press), though attention is also given to the aggregate perceptions of the environment. It emphasizes the perceived environment as a whole (college), parts of it (students, faculty, administration) and the student's perception of the ideal college.

In sum, this report discusses the development of a new instrument to measure student - college interaction - Transactional Analysis of Personality and Environment (TAPE), and presents data in relation to the three kinds of analysis for which it was developed: 1) Comparisons of different college environments. 2) Analysis of sources of conflict or strain within a college environment and comparisons of these sources across colleges. 3) The analysis of individual performance and satisfaction as a function of student - college interaction: "The organism which adapts well under one condition would not survive under another. If for each environment there is a best organism, for every organism there is a best environment" (4).

METHOD

Subjects

3,728 students from 26 colleges participated in this study. For Form A of TAPE, there were 1,745 Ss from 15 private and 11 public colleges while for Form B there were 1,983 Ss from 14 private and 10 public colleges. The following colleges participated in this research:

Antioch	Monmouth
Brooklyn	New Mexico
Bucknell	North Carolina
Cincinnati	Pennsylvania
Dartmouth	Princeton
Douglass	RPI
Earlham	Rutgers
Georgetown	Smith
Haverford	South Dakota
Kent	Stony Brook
Lafayette	Tennessee
Maryland	Texas
Middlebury	Wesleyan

The participating colleges vary in geographical location, size, male - female ratio, and campus atmosphere.

The selection of Ss differed at the various participating colleges. Generally the sample consisted of students taking an introductory psychology course. In one case volunteers were used and in a few there was a random sampling of students in each of the undergraduate years. In all cases the students were not paid and, except for two colleges, participation was anonymous. Data were collected in the Spring of 1966 and 1967.

Materials and Procedure

TAPE is based on the semantic differential technique and asks students to rate a number of concepts on the same polar adjective scales. As Hunt (6) notes, the semantic differential represents "an important method of assessing the interaction between people and situations" (p. 83). In its standard form TAPE requires that the following concepts be judged on 52 scales: College, Self, Students, Faculty, Administration, Ideal College. Concepts relevant to the college refer to the one the student is attending. In this study 11-point scales were used as opposed to the more traditional 7-point scales. This followed Gulliksen's suggestion that Ss are capable of making finer discriminations than are generally allowed for on the semantic differential.

Forms A and B follow the same format but contain different scales. The scales used in these forms were developed on an a priori basis as to which dimensions might be important in assessing individual - environment interaction, particularly student - college interaction. Modifications were then made on the basis of a 10-college exploratory study. Scales were chosen on the basis of whether they discriminated among colleges and between concepts; that is, whether a distribution of responses was obtained across subjects (colleges) or concepts. Examples of the polar adjective scales are: authoritarian - democratic, grinding - fun-loving, religious - secular, idealistic - materialistic, equalitarian - status-oriented.

The TAPE questionnaire included a beginning page on which students gave information such as college class, sex, area of concentration and whether a resident or a commuter, and also included 16 questions relating to satisfaction with the college environment. The latter appeared in the middle of the questionnaire - between the Students and Faculty concept ratings. Ratings were made on 11-point scales with the extremes being defined for the Ss. About 45 minutes was required for a student to fill in the background information, rate each of the 6 concepts on 52 scales and complete the 15 satisfaction items. Scales for Form A and Form B, and items used to test satisfaction are listed in Appendix 1.

RESULTS

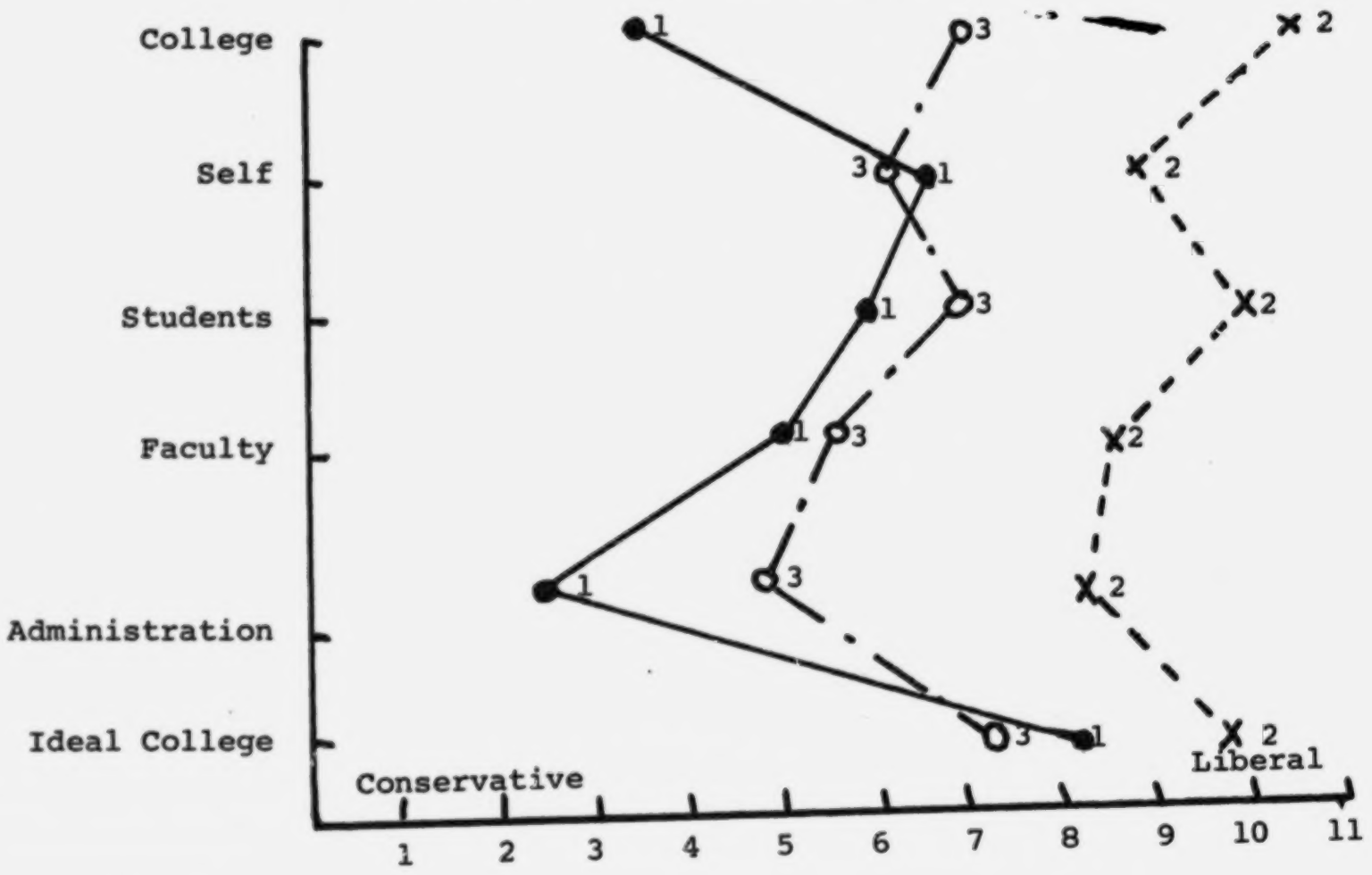
The results are presented in relation to the three purposes for which the instrument was developed: intra-institutional research, inter-institutional research and student - college interaction. Data relevant to the first two goals are largely descriptive whereas the data in relation to the third are more easily interpreted in terms of statistical tests of significance. Data relevant to the reliability and factor structure of TAPE are also presented. Where the number of colleges in the sample is less than the total of 26, this is because data were obtained from some colleges after some analyses had been completed.

Intra-and Inter-institutional Comparisons: Descriptive Properties of TAPE

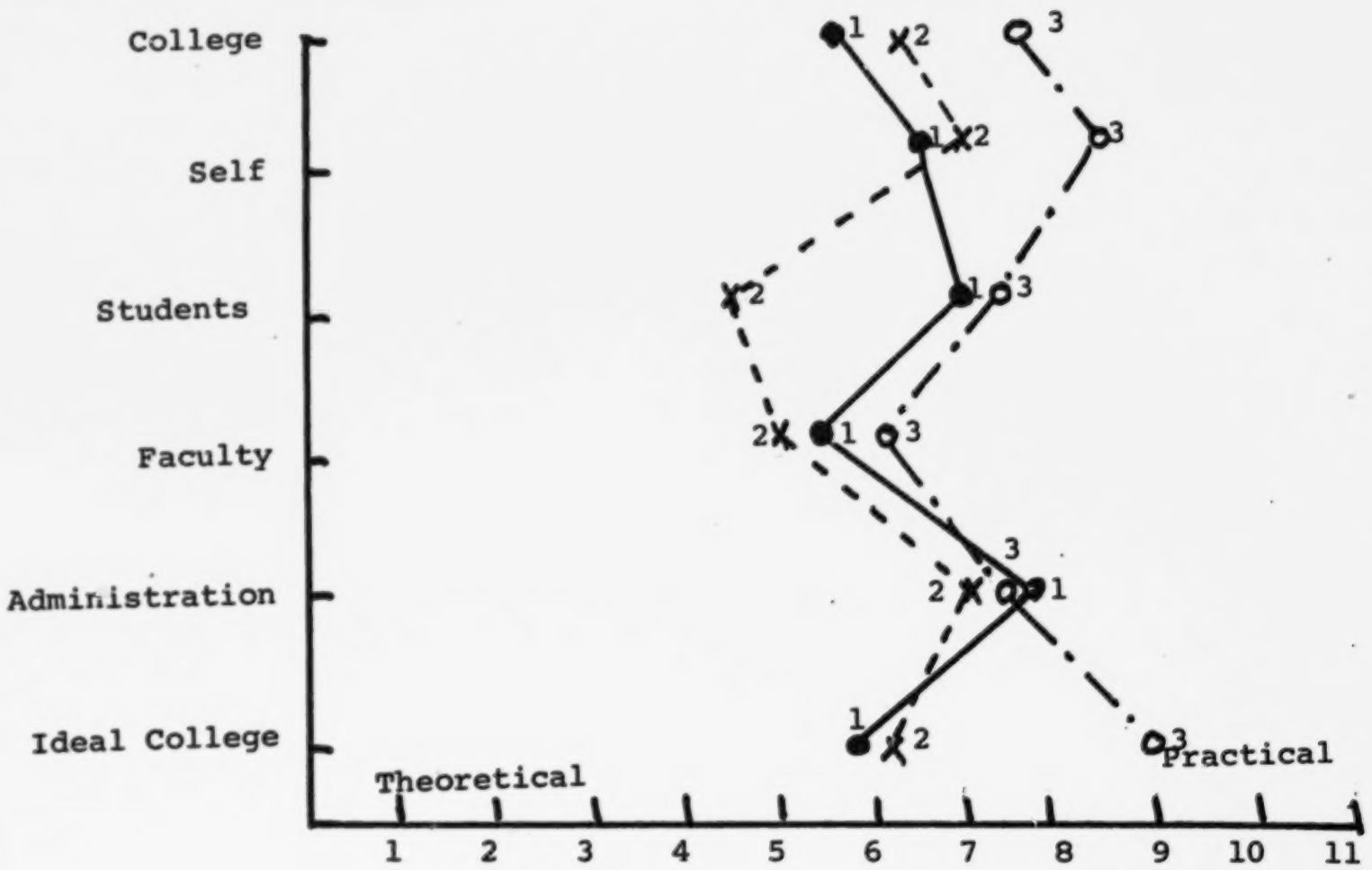
Initial intra-institutional analysis of TAPE data consists of looking at mean scale ratings on each concept and comparisons of means for a scale across concepts; that is, how do students at a college perceive themselves and different parts of their college environment? Inter-institutional comparisons include those of scale means for different colleges on single concepts and of the relative distribution of means for a single scale across different concepts; that is, do students at various colleges perceive different characteristics as associated with individual parts of the college environment (students, faculty, administration, etc.) and in the pattern of characteristics associated with these parts? Examples of these kinds of comparisons are given in Figure 1 where mean ratings on the concepts are plotted for three colleges on each of two scales.

The data presented in Figure 1 illustrate a number of conclusions relevant to TAPE: 1) There is considerable variability in scale ratings across concepts for a single college. For example, on the first scale illustrated it can be seen that for college 1 the college and administration are rated as quite conservative, the self and students less so, and the ideal college as quite liberal. 2) There is considerable variability across colleges in scale ratings on each concept and, perhaps more importantly, in the pattern of ratings for a scale across the six concepts. For example, in the second scale in Figure 1 the means for schools 1 and 2 are quite similar except for the student concept. The absolute values for schools 2 and 3 are quite different but, with the exception of ideal college, the pattern of means is quite similar. On some scales almost all of the schools show a similar pattern whereas on other scales

Figure 1
Concept Means for Three Colleges on Two TAPE Scales
Scale #6A: Conservative-Liberal



Scale #3B: Theoretical-Practical



almost every possible pattern occurs. 3) The variability in pattern of mean ratings indicates that there can exist large discrepancies between the way students see various parts of the college. Particularly noteworthy is the fact that the way students see themselves can be at variance with the way they see students at the college in general (school 2, scale 3B). It can be suggested that large discrepancies suggest sources of strain in the functioning of the system. Different scales and concepts are relevant to different colleges in relation to the strain issue. 4) The mean rating for college can be more extreme than the mean ratings for the parts of the college - the whole can be greater than or different from the sum of its parts (college 2, scale 6A).

As an indication of the variability in ratings across colleges, means for the colleges were computed for each scale on the six concepts. Then, for each scale a range of means for the colleges and the standard deviation of the means was computed. The result was a range of means and standard deviations for the college means for each scale on the six concepts. The mean scale range and scale standard deviation (across 52 scales) are presented for the six concepts in Table 1. These data clearly indicate that the greatest variability occurs in relation to the college concept. On the average, students at different colleges tend to agree on the way they see themselves and their ideal college.

Student - College Interaction: Validity

The major test of the validity of TAPE as a measure of individual - environment interaction consists of the relationship between concept discrepancy scores and satisfaction ratings. For each subject a discrepancy score was calculated for each pair of concept ratings (N-15). A discrepancy score represented the sum of the absolute difference in ratings of two concepts on 52 scales. For each TAPE form and college correlations were computed between the concept discrepancy scores and the satisfaction ratings completed in the middle of the questionnaire - a 15 x 16 correlation matrix. It was predicted that a high discrepancy score would be related to dissatisfaction and that this would hold more for nonacademic satisfaction than for academic satisfaction. Furthermore, it was predicted that certain discrepancy scores should be most significantly related to some satisfaction variables than to others. For example, Self - Students discrepancies should most clearly relate to reports of feeling uncomfortable with students,

Table 1

Characteristics of Scales for TAPE Concepts

Concept	Form A		Form B	
	Mean Range of 21 College Means	Mean Standard Deviation of 52 Scales	Mean Range of 20 College Means	Mean Standard Deviation of 52 Scales
College	4.4	1.17	4.4	1.11
Self	2.4	.62	2.5	.64
Students	3.5	.86	3.7	.89
Faculty	2.5	.65	3.2	.78
Administration	3.2	.80	3.3	.80
Ideal College	2.6	.60	3.1	.77

Self - Faculty discrepancies to reports of dissatisfaction with the faculty, and Self - Administration discrepancies to reports of disagreement with the administration.

Space does not permit the presentation of all correlation matrices for all schools. The correlations between Self - College, College - Ideal College, and Self - Students discrepancy scores and the 16 satisfaction items are given in Appendix 2 for 21 colleges on Forms A and B. Also included in Appendix 2 are the correlations between Self - Faculty and Self - Administration scores and three relevant satisfaction items for the corresponding schools on Forms A and B. A summary of the data most relevant to the validity issue and the above predictions is presented in Table 2. These data indicate the characteristics (mean, median, range, number significant) of the correlations between Self - College discrepancy scores and 16 satisfaction variables. These are presented for public and private colleges on Forms A and B of TAPE. The correlations are presented so that a positive correlation always means a positive relationship between discrepancy scores and dissatisfaction ratings. Correlations significant beyond the .01 and .001 levels of confidence are included in the number significant ($p < .05$) category. The maximum number of significant correlations would be the same as the number of colleges in the sample.

The data in Table 2 give clear support to the predictions. While the range of correlations indicates some variability in the stability of the relationships across schools and items, the general trend is clearly in the direction of a relationship between high self - college discrepancy and dissatisfaction. The relationships are relatively stable across the two forms, though there is some tendency for the public college correlations to be higher on Form B than on Form A. Since dropping out of college is a much more complex phenomenon than satisfaction, it is not surprising that correlations for the former are generally lower than those for the latter. Though there are some exceptions, the correlations relating to academic dropout and satisfaction are generally lower than those for nonacademic dropout and satisfaction.

While not presented here, the correlations between College - Ideal College discrepancy scores and satisfaction ratings are very similar to those for Self - College discrepancy scores and satisfaction, though generally they are slightly higher. It was predicted that certain discrepancy scores should correlate better with some satisfaction variables than with others

Table 2

Correlations Between Self-College Discrepancy Scores and Satisfaction Ratings for Public and Private Colleges

	TAPE Form A								TAPE Form B							
	Public (N=11)				Private (N=10)				Public (N=11)				Private (N=9)			
	Mean	Median	Range	No Sig.*	Mean	Median	Range	No Sig.*	Mean	Median	Range	No Sig.*	Mean	Median	Range	No Sig.*
1. How likely is it that you will at some time drop out of college?	.13	.16	-.36/.69	2	.21	.28	-.10/.42	6	.15	.14	.06/.43	1	.23	.25	-.05/.56	6
2. How likely is it that you will at some time drop out for academic reasons?	-.02	.03	-.33/.20	0	.08	.09	-.12/.22	2	.07	.09	-.11/.13	0	.06	.08	-.06/.15	0
3. How likely is it that you will drop out for nonacademic reasons?	.19	.16	-.02/.76	2	.29	.33	-.04/.46	7	.16	.16	.01/.35	4	.30	.33	-.07/.59	7
4. How often do you think about dropping out for nonacademic reasons?	.23	.18	.05/.56	3	.32	.35	-.01/.43	8	.30	.29	.05/.71	7	.36	.37	.11/.66	8
5. How comfortable do you feel with most of the students at your college?	.21	.13	-.06/.69	5	.29	.37	.03/.49	6	.25	.27	.01/.65	8	.31	.33	.07/.46	7
6. How similar do you feel your values are to the values of the faculty?	.17	.18	-.15/.53	5	.30	.30	.14/.41	9	.25	.32	-.42/.46	9	.30	.24	.06/.55	6
7. How much do you agree with the administrative rules and regulations?	.26	.29	-.01/.45	8	.30	.30	.06/.55	8	.32	.29	.00/.70	9	.37	.38	.05/.60	7
8. How much do you disagree with your college on important issues?	.17	.14	-.08/.46	3	.23	.21	.09/.44	6	.27	.23	-.03/.74	6	.29	.27	.15/.46	6
9. How often do you feel out of place at your college?	.26	.16	.09/.77	4	.39	.38	.17/.50	9	.29	.30	.15/.41	7	.38	.42	.13/.51	7
10. In terms of your own needs and desires, how satisfied are you with the academic aspects of your college?	.18	.12	-.18/.63	5	.26	.30	-.14/.58	6	.29	.27	-.03/.65	8	.29	.31	.00/.60	6
11. In terms of your own needs and desires, how satisfied are you with the nonacademic aspects of your college?	.35	.37	.03/.72	9	.35	.32	.20/.54	10	.22	.24	-.08/.38	7	.40	.39	.20/.60	7
12. So far, what kinds of times have you had at your college?	.24	.18	.06/.59	6	.28	.31	.10/.58	8	.25	.22	.11/.68	7	.31	.34	-.11/.47	7
13. Do you think that your academic experience would have been more rewarding elsewhere?	.22.	.26	-.07/.50	5	.37	.42	.00/.57	8	.33	.31	.16/.57	8	.38	.42	-.10/.58	8
14. Do you think that your nonacademic experience would have been more rewarding elsewhere?	.24	.19	-.02/.59	6	.26	.25	.05/.49	8	.27	.23	.05/.53	7	.27	.25	.16/.39	5
15. To what extent is the college responsible for your frustrations in relation to academic goals?	.19	.16	-.03/.48	3	.16	.12	.04/.39	1	.18	.25	-.02/.31	5	.17	.14	.06/.50	2
16. To what extent is the college responsible for your frustrations in relation to nonacademic goals?	.17	.13	-.07/.64	2	.15	.13	-.14/.50	3	.11	.11	-.09/.33	2	.18	.25	-.12/.57	5

* Number of significant correlations: $p < .05$, one-tailed test.

and data relevant to this prediction are presented in Table 3. Satisfaction questions 5, 6 and 7 related to satisfaction with students, faculty and administration respectively. We would expect correlations between Self - Students, Self - Faculty and Self - Administration discrepancies to correlate best with the corresponding satisfaction variables. The data in Table 3 indicate that while the discrepancy scores generally relate to a variety of satisfaction items, in every case the discrepancy score correlates highest with the corresponding satisfaction variable. This holds for public and private colleges on both forms.

Since individually perceived discrepancies tend to relate to individual reports of dissatisfaction, the question may be raised as to whether similar relationships would hold on the institutional level; that is, if students at a college perceive large discrepancies do they also tend to report large amounts of dissatisfaction? To answer this question mean discrepancy scores and mean satisfaction ratings were computed for each college. (Mean discrepancy scores for colleges on Forms A and B are given in Appendix 3.) The colleges were ranked in terms of their mean discrepancy scores and mean satisfaction scores and then rank-order correlations were computed between the two sets of ranks.

Relevant data are presented in Table 4. Five rank-order correlations are presented for each form: mean self - college discrepancy score and mean ratings for feeling out of place, mean self - college discrepancy score and mean ratings for non-academic dissatisfaction, mean self - students discrepancy score and mean rating for feeling comfortable with students, mean self - faculty discrepancy score and mean rating for similarity of values to those of the faculty, mean Self - Administration discrepancy score and mean rating for agreement with the Administration. Two of the correlations did not reach significance but the results give clear support to the hypothesis that large perceived discrepancies at a college tend to go with general dissatisfaction at a college.

Relationship of Individual Scales to Satisfaction

The data reported until now have comprised discrepancy scores across scales. Two further questions can be raised: Are there relationships between ratings on <u>individual</u> scales and satisfaction? How do relationships between perceptions of the college alone or of the self alone (as opposed to self - college discrepancy scores) relate to satisfaction ratings?

Table 3

Mean and Median Correlations Between Three Discrepancy Scores and Three Satisfaction Variables for Public and Private Colleges

Concept Discrepancy	Question Number	TAPE FORM A Public (N=11) Mean	TAPE FORM A Public (N=11) Median	TAPE FORM A Private (N=10) Mean	TAPE FORM A Private (N=10) Median	TAPE FORM B Public (N=11) Mean	TAPE FORM B Public (N=11) Median	TAPE FORM B Private (N=9) Mean	TAPE FORM B Private (N=9) Median
Self - Students	5	.30	.32	.37	.39	.32	.29	.39	.40
	6	.18	.21	.18	.17	.25	.28	.29	.30
	7	.19	.17	.19	.21	.27	.23	.31	.38
Self- Faculty	5	.14	.09	.17	.19	.19	.16	.23	.24
	6	.23	.30	.35	.37	.33	.38	.44	.47
	7	.18	.26	.27	.27	.25	.24	.32	.34
Self - Administration	5	.08	.06	.19	.18	.15	.16	.20	.26
	6	.08	.11	.22	.24	.30	.35	.30	.28
	7	.31	.38	.44	.42	.41	.36	.49	.49

To answer these questions the correlation between ratings on the college concept, ratings on the self concept, and self - college discrepancy scores on each scale were correlated with each of six satisfaction items: thinking of dropping out for nonacademic reasons, similarity of values to the faculty, agreement with administrative rules and regulations, feeling out of place at the college, academic satisfaction, nonacademic satisfaction. This was done on each scale for each college (26 on Form A, 23 on Form B) and then an average correlation was computed. In sum, for any one college there are data on how college perceptions, self perceptions, and self - college discrepancy scores on a scale related to each of six satisfaction items.

These average correlations indicated that perceptions of the college and self - college discrepancy scores tended to correlate equally well with satisfaction ratings and on the average, both correlated better with these ratings than did self ratings alone. Certain ratings tended to go with dissatisfaction across colleges in general. Some of the more striking of these findings are as follows:

FORM A

1. Rating the college as authoritarian and dissatisfaction with the administration.
2. Rating the college as egg-headish and dissatisfaction with the faculty, administration, academic aspects, and nonacademic aspects of the college.
3. Rating the college as high on characteristics such as snobbish, stubborn, reserved, intolerant, insensitive, indifferent, and cold correlated with a number of dissatisfaction ratings.
4. Rating the self as noncollegiate and egg-headish correlated with a number of dissatisfaction items.
5. Large self - college discrepancies on scales such as egg-headish - well-rounded, collegiate - non-collegiate, snobbish - friendly, and warm - cold correlated with a number of dissatisfaction items.
6. Large self- college discrepancies on scales such as authoritarian - democratic, conservative - liberal, bureaucratic - unstructured, and permissive - restraining correlated with dissatisfaction with the administration.

Table 4

Rank Order Correlations Between Mean Discrepancy Scores and Mean Satisfaction Ratings (N = 20 colleges)

Variables	Form A Correlations	Form B Correlations
1. Self - College + Out of Place (#9)[1]	.59**	.71***
2. Self - College + Nonacademic Satisfaction (#11)	.38	.13
3. Self - Students + Comfortable with Students (#5)	.15	.74***
4. Self - Faculty + Similar Values to Faculty (#6)	.47*	.83***
5. Self - Administration + Agree with Administration (#7)	.85***	.65**

* $p < .05$, two-tailed test of significance
** $p < .01$, two-tailed test of significance
*** $p \leq .001$, two-tailed test of significance

[1] Numbers in parentheses refer to satisfaction items listed in Table 1.

FORM B

1. Rating the college as high on characteristics such as indifferent, nondirecting, self-interested, rigid, uninteresting, insincere, impersonal, nonintellectual, unfriendly, undirected, unsociable, pessimistic, and supportive as opposed to challenging correlated with a number of dissatisfaction items.
2. Rating the self as undisciplined, traditionless, lustful, anti-institutional religion, nonacademic achievement, amoral, tense, undirected, unsociable, and pessimistic correlated with a number of dissatisfaction items.
3. Large self - college discrepancies on scales such as sophisticated - unsophisticated, conventional - eccentric, self-interested - humane, flexible - rigid, academic achievement - nonacademic achivement, sincere - insincere, esthetic - task-oriented, nonintellectual - intellectual, conforming - rebellious, and sociable - unsociable correlated with a number of dissatisfaction items.

These findings indicate that there are certain perceived characteristics of the college and of the self which tend to be associated with student dissatisfaction at a wide variety of colleges. Similarly, there appear to be common perceived self - college discrepancies associated with high dissatisfaction. At least equally impressive, however, are the differences to be found among colleges, that is, in the perceptions associated with dissatisfaction at two or more colleges. From an analysis of the scale ratings on college, self, and self - college discrepancy, and the relationships of these scale ratings to dissatisfaction (out of place, nonacademic) at each school, the following pictures emerge at four colleges:

College A. This college is a small, selective, liberal arts college in the midwest and is noted for its liberal traditions. According to TAPE data, self - college discrepancies on the following scales appear to be critical: conservative - liberal, modern - traditional, responsible - lustful, equalitarian - status-oriented, philosophical - pragmatic, conforming - nonconforming, Democratic - Republican, social welfare - laissez-faire, conforming - rebellious, pro - anti institutional religion. Dissatisfied students tend to see the college as theoretical, pleasure - seeking, and introverted, and themselves as conservative, anti-intermarriage, traditional, capitalistic,

militaristic, conventional, pro-institutional religion, Republican, conforming, and conventional. Summary: From the means on scales and correlations between scale ratings and satisfaction ratings, the picture that emerges is that of a college that tends to be liberal in its views - political, economic, and social, and to have somewhat nonconforming and unconvential students. More conservative and less rebellious students appear to have some problems at this college. If this is a nonconformist culture, those who generally conform have problems doing so at this college.

College B. This is a small, men's, elite, liberal arts college in the East. It is known for its excellence of academic standards and emphasis upon the responsibilities of man. According to TAPE data, self - college discrepancies on the following scales appear to be critical: scholarly - nonscholarly, business - labor, responsible - lustful, grinding - funloving, philosophical - pragmatic, promiscuous - puritanical, academic achievement - nonacademic achievement, introspective - action oriented. Dissatisfied students tend to see the college as noncollegiate, cooperative, grinding, avocational, scholarly, equalitarian, nonathletic, bookwormish, and prudish. Compared to satisfied students, they tend to see themselves as nonscholarly, extroverted, lustful, funloving, pragmatic, pro-segregation and self-interested. Summary: This is a predominantly academic and somewhat idealistic culture. Those who are more collegiate and pragmatic have problems in deriving the gratifications from the college that they most hope for.

College C. This college is a small, coeducational college in New England. Many students attend whose first choice was an Ivy League or similar type of college. According to TAPE data, self - college discrepancies on the following scales tend to be critical: capitalistic - socialistic, provincial - cosmopolitan, authoritarian - democratic, collegiate - non-collegiate, Democratic - Republican, modern - traditional. Compared to satisfied students, those who are dissatisfied see the college as conservative, ritualistic, anti-intermarriage, conforming, conservative, traditional, nonacademic achievement, self-interested, provincial and nonintellectual. These students tend to see themselves as egg-headish, noncollegiate, grinding, amoral, nonathletic, and introspective. Summary: The predominant culture here appears to be one of an emphasis upon the collegiate and the traditional. Students who are academically oriented and have nonconformist and idealistic characteristics may have difficulty in gaining acceptance from their peers.

College D. This is a large, public university in the middle - Atlantic region. According to TAPE data, self - college discrepancies on the following scales tend to be critical: collegiate - noncollegiate, pro-anti-intermarriage, scholarly - nonscholarly, business - labor, prosegregation - prointegration, academic achievement - nonacademic achievement. Compared to satisfied students, those who are dissatisfied tend to see the college as nonscholarly, competitive, funloving, materialistic, business, and pragmatic. These students also tend to see themselves as noncollegiate, eggheadish, introverted, responsible, philosophical, labor, humane, and intellectual. Summary: The general picture is that of a very collegiate culture in which those with academic and more liberal views have some difficulty "fitting in" and deriving nonacademic gratifications.

The analysis of scale data suggests, then, that certain characteristic leading to student dissatisfaction tend to be shared by most or all colleges, while other characteristics may be more or less salient at a college and may be salient in one or another direction. The data support the TAPE approach toward understanding student satisfaction.

Reliability

The test - retest reliability of the semantic differential has been found to be quite high (15, 17). Thus, in part the reliability of TAPE stands upon past research on the semantic differential. However, some data can be presented which are specifically relevant to the reliability of TAPE as a measuring instrument. A reliability study was completed on Form B by James Pedersen at South Dakota State University. In the Spring semester students completed TAPE Form B and then a sample of these completed ratings on three of the concepts about a month later. All Ss rated the self concept while one half of the sample also rated the college concept and the other half of the sample the students concept.

Data relevant to the reliability of TAPE Form B are presented in Table 5. First the reliability of individuals can be looked at. The first column indicates the mean reliability of ratings for individual subjects on each of the three concepts. These were computed across 52 scales for each subject rating a concept. The data are quite comparable to those reported by Lilly (unpublished manuscript) which represents the one other place this kind of reliability is reported for the semantic differential. There was considerable variation among individuals in their reliability correlations. Another reliability check for individuals is that on discrepancy scores.

Table 5

Product - Moment Correlation Coefficients

Indicating Reliability of TAPE - Form B

Type of Reliability	Concept		
	College N=37	Self N=75	Students N=35
1. Mean of Individual Subject Reliabilities	.59	.70	.58
2. Mean of 52 Scale Reliabilities	.40	.56	.47
3. Concept Reliability - Across Scales + Ss	.58	.70	.60
4. Scale Reliability - Means for Two Samples	.98	.98	.98
5. Scale Reliability - Means for Test - Retest	.95	.99	.95

If the individual had a large discrepancy score between a pair of concepts on one occasion did he also have a large discrepancy score upon the second occasion? Product - moment correlation coeficients were run for Self - College and Self - Student discrepancy scores, obtained for the same subjects from the two testing sessions. The correlation for the former was .87 and that for the latter .95. The conclusion can be drawn that the discrepancy scores show a quite high degree of reliability. Even if an individual tends to vary in his scale ratings, in general he tends to see about the same amount of discrepancy between two concepts when the time between the ratings is not very great.

Turning to the scale ratings, the second column in Table 4 indicates the correlation between two sets of ratings on the scales. Here the ratings for each scale are correlated across Ss, resulting in 52 correlation coefficients for each concept. The correlations here are not high but are similar to those reported by Norman (16). Actually, these correlations do not represent a fair appraisal of the scale reliability. For example, the first scale on the college concept had a product-moment correlation coefficient of .14 - quite low. Yet, 50 percent of the ratings were either the same or one position off and 75 percent of the ratings were two or fewer positions off. The problem is that if a scale has low variability in ratings, often a desirable characteristic, and some minor amount of changes in ratings, the reliability estimate will tend to be low.

Another kind of reliability is that of concept reliability. As a measure of this the ratings for the two occasions were correlated across scales and Ss. These correlations range from .58 to .70. As a more global measure of the reliability of the ratings, the ratings from the two occasions were correlated across concepts, scales and Ss (N=7,644). The result was a product - moment correlation coefficient of .65.

Finally, there is the reliability of the scale means. The scale means for a large sample were correlated with those of a smaller sample for each of the six concepts. The data for three concepts are given in the fourth column of Table 4. The correlation coefficients for the other three concepts and for the satisfaction items were either .98 or .99, indicating a high degree of reliability. Correlations between the scale means for the first time TAPE was administered and the scale means for the second testing session (test - retest reliability)

are indicated in the last column in Table 4. These data are comparable to those reported by Jenkins, Russell, and Suci (9) and clearly indicate that the scale means are quite reliable between samples and testing sessions.

Factor Structure

A three-mode factor analysis was completed on the TAPE data across both forms. The procedure followed was the same as that in Levin's (12) analysis, which was based on work by Tucker (1964). Whereas the usual semantic differential analysis examines only the scale mode factors, the three-mode factor analysis permits the investigator to explore the factors in the scale, concept, and subject (college) modes simultaneously as well as the interrelations among these three sets of factors.

In this study the factor analysis was completed across 104 scales, 6 concepts and 20 colleges. College means were used to represent the subject mode. Fourteen scale factors, three concept factors and three college factors were derived. All concepts were important in the concept factors and the college factors suggested one for state colleges and two for private colleges. The latter seemed to consist of a group of elite, conservative colleges and a group of elite, liberal and less conventional colleges. The addition of other colleges in the future will likely increase the number of college factors.

The scale factors are given in Table 6 along with two examples of scales with high loadings on the factors. The factors clearly cover a variety of areas including those of modes of impulse expression, interests or goals, and value orientations. A number of factors appear to be similar to those reported by Pace (18) in the development of CUES.

Table 6

Scale Factors and Sample Scales Derived

From Three - Mode Factor Analysis

Factor	Sample Scales
1. Impulsivity - Inhibition	1. sober - intoxicated disciplined - undisciplined
2. Humane Idealism - Narcissism	2. humane - self-interested idealistic - materialistic
3. Warm - Cold	3. warm - cold sociable - unsociable
4. Introversion - Extroversion	4. introverted - extroverted eggheadish - well-rounded
5. Goal-directed Activity	5. motivated - undirected industrious - tranquil
6. Liberal Idealism - Conservative Pragmatism	6. social welfare - laissez faire socialistic - capitalistic idealistic - materialistic
7. Scholarship	7. research - application scholarly - non-scholarly
8. Optimism - Alienation	8. relaxed - tense optimistic - pessimistic
9. Conventionality	9. religious - secular moral - amoral
10. Creativity	10. artistic - pragmatic esthetic - task-oriented
11. Sensitivity	11. feminine - masculine sensitive - insensitive
12. Tradition	12. upperclass - middle class elegant - common traditional - traditionless
13. Cosmopolitan - Provincial	13. cosmopolitan - provincial urban - rural

DISCUSSION

The data in this study have been presented in relation to the specific goals of the research. However, it is important to recognize that the data in relation to each goal have relevance for one another, for the theoretical rationale involved and for the TAPE instrument as a whole. TAPE appears to hold considerable promise for intra- and inter-institutional research. The validity data suggest that discrepancy scores can be useful in institutional research. For example, mean discrepancy scores can be computed for each pair of concepts. Comparisons of these would suggest sources of strain in the functioning of the parts of the college or differences in the system functioning of different colleges. In fact, large mean discrepancy scores for colleges have tended to be related to large mean dissatisfaction scores, a relationship already noted in relation to individuals.

The discrepancy score - satisfaction data can also be used to assess the scales or dimensions upon which the greatest discrepancies occur and those which are most related to dissatisfaction. An analysis of two schools along these lines suggests that significant areas of discrepancy and dissatisfaction vary from college to college and the relationship between perceptions may vary within the same area. For example, dissatisfied students at one school saw the college as more conservative, less equalitarian and less scholarly, and the self as more liberal, more equalitarian and more scholarly than did satisfied students. On each of these scales the relationship was reversed for dissatisfied students at the second school; that is, at the second school dissatisfied students saw the college as more liberal, more equalitarian and more scholarly, and the self as less liberal, less equalitarian and far less scholarly than did satisfied students. Indeed, data such as these strongly support the conclusion of Douvan and Kaye (6) that there is something wrong in the process by which students select colleges and that the time may come when we are able to arrive at a student - college fit which is most conducive to developmental growth and change. These data do not suggest that homogeneity of colleges or homogeneity of students within a college is best. Rather they suggest that there is an optimum fit between student and college, the qualities of which will vary for different students and different colleges. Viewed in this light, this research should be useful in suggesting the transactions within the college, or between students and parts of the college, that might be influenced in the direction of fostering student development.

Cronbach (5) has suggested that discrepancy scores may be less useful than using ratings of one or another concept alone. An intensive analysis of the data from one school suggested that this was not the case for the relationships reported here. Discrepancy scores appeared to account for more of the variance than either self or college ratings. Furthermore, since the relationship between particular scale ratings and satisfaction scores can vary from college to college, relationships involving discrepancy scores will likely have greater stability across schools.

Another possible source of variance in the data investigated was that of a curvilinear relationship between size of discrepancy score and degree of satisfaction. The data for a number of the correlations were plotted but evidence for such a curvilinear relationship was not found.

It is possible to argue that the satisfaction ratings were contaminated by the ratings of the concepts. For this to be true, one would have to argue that ratings on the first three concepts biased the satisfaction ratings and the latter in turn biased ratings on the next three concepts. If this were the case, one would suspect a general bias in ratings across satisfaction items. Yet, discrepancy score - satisfaction relationships varied between academic and nonacademic kinds of satisfaction and depended upon the concept pair and satisfaction item involved. Specific discrepancy scores (Self - Students, Self - Faculty, Self - Administration) tended to have their highest correlations with the corresponding satisfaction items. Finally, in an earlier study (23) similar relationships were found even though concept and satisfaction ratings were made a week apart.

Results from the three-mode factor analysis should be useful in future research with TAPE. Data can now be analyzed in terms of how each of the concepts for each college loads on the scale factors. This provides intra- and inter-institutional comparisons using factor scores rather than scale scores. Furthermore, the development of factors now allows for an analysis of the relationship between semantic space discrepancy scores (17) and satisfaction ratings. Also, the suggestion of Cronbach (5) that the factor scores may vary in their relationships to the dependent variable can be investigated.

Future research with TAPE can follow along a number of lines. Four areas can be specified: 1) <u>Intra-institutional affecting correlations</u>. Here one may study differences between

males and females, members of different colleges or members of different college years. Some early analyses suggest that the relationships hypothesized hold best for the freshman year. 2) Inter-institutional variables affecting correlations. Here one may study the characteristics (size, complexity, etc.) of different colleges which affect the nature of the relationships. It has already been suggested that some scales and factors may be more important for some institutions than for others. Also, some colleges may show greater tolerance for diversity and heterogeneity. 3) Personality variables. It may be that some individuals are more tolerant of differences and are more flexible in adapting to them than others. 4) Instrument variables. Analysis of individual scale and factor scores has already been suggested. Current research is also being directed toward an analysis of the direction of perceived discrepancies rather than just analyzing distance. A hypothesis being investigated here is that discrepancies which are perceived as helping the individual become like his ideal self are desirable whereas those which are perceived as taking him away from the ideal self are not. Other studies involving TAPE include the comparison of faculty ratings with student ratings and the analysis of changes in student perceptions over time.

In contrast to other instruments, TAPE allows for the analysis of transactions among parts of the college system and uses student perceptions of areas of interest as opposed to defining the characteristics relevant to the area for the student (2). The data presented are taken as supporting the theoretical rationale which led to the development of TAPE and the utility of TAPE in the study of student - college interaction.

The promise of TAPE as a measuring instrument has already led to the development of research efforts at other colleges. These deal with a variety of problems which are significant in higher education. The following represent brief descriptions of these efforts: 1) Kent State University. An attempt to use TAPE in the actual prediction of freshman dropouts. 2) South Dakota State University. A detailed analysis of student perceptions and student - college interaction at a large, state university. 3) Earlham College. An analysis of the effects of an experimental program upon student perceptions of the college, perceptions of themselves, and satisfaction. 4) Monmouth College. An analysis of determinants of students dissatisfaction and an effort to obtain faculty and administrative responses to TAPE. The latter will then be used to compare student, faculty, and administration perceptions of the college and parts of the

college. 5) University of Tennessee. An analysis of student - college interaction and sources of stress. We can expect such efforts to continue as research on TAPE gets reported in the professional journals.

CONCLUSIONS, IMPLICATIONS, RECOMMENDATIONS

The major focus of this study has been on an analysis of student - college interaction and the relationship of such interaction to student dissatisfaction and dropout. The data gathered and analyzed clearly give support to the utility of the TAPE instrument in three significant areas: A) The measurement of similarities and differences among colleges. B) The measurement of sources of strain within a college. C) The measurement of sources of stress for individual students.

The importance of an instrument such as TAPE is reflected in the considerable interest other investigators have already evidenced in TAPE and in the varied problems being studied with TAPE. The advantage of TAPE is that along with looking at problems in colleges and in students, it focuses upon the process of interaction between the two. Efforts toward changing a college or toward affecting students can now be assessed in terms of transactional processes along with an assessment of perceptions of parts of the college. Proper use of TAPE should lead to a better understanding of the functioning of a single college and of colleges in general. In relation to this, two specific implications of TAPE research are worthy of note - selection of college and the college as a social system.

It is possible to anticipate the time when students will select colleges on the basis of known rather than stereotypic characteristics and that such a process of selection will allow for the optimum utilization of their talents. Obviously we are not yet at a sufficient level of sophistication in our efforts to measure characteristics of students and colleges, or in our understanding of the processes fostering growth and development, to embark upon such an adventure at the present time. Yet, in a sense, we have already done so. Students select colleges on the basis of inadequate and often incorrect information. In many cases they are frankly "sold a bill of goods." Regardless of whether they select a college or take what is available to them, they enter college with many unrealistic expectations about characteristics of the college (19, 21). Any steps that we can take to improve upon the selection process and to make perceptions of college more realistic should be encouraged.

The second major issue is that of an understanding of the college as a social system. The college is a system in that it

is composed of interdependent parts which work in a more or less complementary way toward more or less compatible goals. It is a social system in that the parts involve people, with individual and group needs to be satisfied. An analysis of the college as a social system would include an analysis of goals (Ideal College) and perceptions (College, Students, Faculty, Administration) relevant to students, faculty, and administration. The goal here would be to understand the effect upon the individual when he does not share the values of his environment, and the effect upon the college when its parts fail to function in an integrated way. Colleges differ in the degree to which they lack integration, in the areas in which they lack integration, and in the conditions contributing to a lack of integration. The findings at Harvard (27) that houses in which masters, tutors, and students pursue the same ends had the greatest impact upon student values suggest the importance of an analysis of the integration among the parts of the college system.

SUMMARY

This report covers research on college characteristics and student - college interaction using TAPE (Transactional Analysis of Personality and Environment), an instrument based on the semantic differential. The focus of the research was on how college characteristics, student characteristics, and students - college discrepancies are related to student dissatisfaction and the tendency toward dropping out.

3,728 students from 21 colleges rated the following concepts on the 52 scales in Form A or the 52 scales in Form B: My College, My Self, Students, Faculty, Administration, Ideal College. Ratings of satisfaction with aspects of college life were made on 16 scales.

Data relevant to four areas were presented: 1) TAPE as a measuring device for intra- and inter-institutional research; 2) The relationship between concept discrepancy scores, scale ratings, and satisfaction ratings; 3) Reliability of TAPE: 4) Factorial structure of TAPE.

The following are among the more significant results reported:

1. The scales were found to be useful in differentiating among colleges - inter-institutional analysis.
2. The scales were found to be useful in differentiating among parts of any one college - intra-institutional analyses.
3. Discrepancies between student perceptions of themselves and their college were found to relate to reports of dissatisfaction with college and reports of probability of dropping out of college. This was more true for nonacademic than for academic issues.
4. Colleges with large average discrepancy scores also tended to have large average dissatisfaction scores, suggesting the utility of TAPE data in social systems analyses as well as in individual systems analyses.
5. Some characteristics of colleges and of students tend to be generally associated with dissatisfaction. However, beyond these characteristics colleges differ in the characteristics most significant for stress on the campus. Data were reported for four colleges to exemplify this issue.

6. Ratings on TAPE scale appear to have satisfactory reliability

The data were reported as supporting the theoretical model of student - college interaction and the utility of TAPE in this area of research. Four areas for future research were delineated: 1) Intra - institutional variables affecting correlations; 2) Inter - institutional variables affecting correlations; 3) Personality variables; 4) Instrument variables. It was recommended that future research include the possibility of using data such as are provided by TAPE for assisting students in the selection of a college. It was also recommended that future research obtain the ratings of members of the faculty and administration at various colleges to facilitate the complete analysis of colleges as social systems. The variety of research programs making use of TAPE at other colleges was indicated.

The research reported here and conceptual model involved in the research have been presented in a number of published or in press articles. These are the following:

Pervin, L. A. "A twenty - College Study of Student - College Interaction Using TAPE: Rationale, Reliability, and Validity," Journal of Educational Psychology, in press.

Pervin, L. A. "Satisfaction and Perceived Self-Environment Similarity: A Semantic Differential Study of Student - College Interaction," Journal of Personality, in press.

Pervin, L. A. "The College As A Social System: Student Perceptions of Students, Faculty, and Administration," Journal of Educational Research, in press.

Pervin, L. A. "Performance and Satisfaction As A Function of Individual - Environment Fit," Psychological Bulletin, in press.

Pervin, L. A. "The College As A Social System," Journal of Higher Education. XXXVIII, June 1967. p. 317-322.

Pervin, L. A., and Rubin, D. B. "Student Dissatisfaction With College And The College Dropout: A Transactional Approach," Journal of Social Psychology. LXXII, 1967. p. 285-295.

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APPENDIX 1. TAPE Scales for Form A and Form B

FORM A

1 authoritarian — democratic
2 pro-inter-marriage — anti-inter-marriage
3 intuitive — reasoning
4 application — research
5 inhibited — impulsive
6 conservative — liberal
7 collegiate — non-collegiate
8 equalitarian — status-oriented
9 egg-headish — well-rounded
10 masculine — feminine
11 bureaucratic — unstructured
12 considerate — inconsiderate
13 urban — rural
14 scholarly — non-scholarly
15 uncertain — over-confident
16 snobbish — friendly
17 thinking — acting
18 stubborn — compliant
19 public — private
20 competitive — cooperative
21 affectionate — reserved
22 introverted — extroverted
23 religious — secular
24 aspiring — easygoing
25 tolerant — intolerant
26 ritualistic — spontaneous
27 skeptical — believing
28 vocational — avocational
29 good — bad
30 sensitive — insensitive
31 business — labor
32 modern — traditional
33 responsible — lustful
34 grinding — fun-loving
35 concerned — indifferent
36 philosophical — pragmatic
37 complex — simple
38 middle-class — upper-class
39 leader — follower
40 scrupulous — shrewd
41 nurturant — indifferent
42 erudite — unpedantic
43 creative — uncreative
44 promiscuous — puritanical
45 brilliant — wise
46 warm — cold
47 idealistic — materialistic
48 open — closed
49 conformist — non-conformist
50 permissive — restraining
51 excitable — placid
52 humanities — sciences

FORM B

1 disciplined — undisciplined
2 traditionless — traditional
3 theoretical — practical
4 sober — intoxicated
5 sympathetic — indifferent
6 capitalistic — socialistic
7 cautious — uninhibited
8 guiding — nondirecting
9 shameless — prudish
10 sophisticated — unsophisticated
11 examining — accepting
12 militaristic — pacifistic
13 common — elegant
14 conventional — eccentric
15 self-interested — humane
16 rational — emotional
17 flexible — rigid
18 lustful — serious
19 artistic — pragmatic
20 uninteresting — exciting
21 pro-institutional religion — anti-institutional religion
22 academic — nonacademic
23 pro-segregation — pro-integration
24 amoral — moral
25 passionate — controlled
26 togetherness — individualism
27 moderation — excellence
28 big — small
29 sincere — insincere
30 easygoing — restless
31 esthetic — task-oriented
32 Democratic — Republican
33 non-athletic — athletic
34 tranquil — industrious
35 social welfare — laissez faire
36 personal — impersonal
37 provincial — cosmopolitan
38 non-intellectual — intellectual
39 tense — relaxed
40 unfriendly — friendly
41 public — parochial
42 conforming — rebellious
43 atheistic — theistic
44 bookwormish — pleasure-seeking
45 undirected — motivated
46 professional — nonprofessional
47 formal — informal
48 sociable — unsociable
49 optimistic — pessimistic
50 challenging — supportive
51 introspective — action-oriented
52 compulsive — unrestrained

APPENDIX 1: List of Satisfaction Items Used in TAPE Forms A and B

1. How likely is it that you will at some time drop out of college? (Drop out means leaving college for any reason—personal, health, academic, required, nonrequired or any other.)
   Probably will 1 2 3 4 5 6 7 8 9 10 11 Definitely will not

2. How likely is it that you will at some time drop out of college for academic reasons (poor grades)?
   Probably will 1 2 3 4 5 6 7 8 9 10 11 Definitely will not

3. How likely is it that you will drop out for nonacademic reasons (personal reasons, transfer, leave of absence, etc.)? Do not include financial reasons here.
   Probably will 1 2 3 4 5 6 7 8 9 10 11 Definitely will not

4. How often do you *think* about dropping out of college for nonacademic reasons (personal reasons, transfer, leave of absence, etc.)? Do not include financial reasons here.
   Frequently 1 2 3 4 5 6 7 8 9 10 11 Never

5. How *comfortable* do you feel with most of the students at your college?
   Completely comfortable 1 2 3 4 5 6 7 8 9 10 11 Completely uncomfortable

6. How *similar* do you feel your values are to the values of the faculty at your college?
   Identical values 1 2 3 4 5 6 7 8 9 10 11 Opposite values

7. How much do you *agree* with the administrative rules and regulations of your college?
   Absolute agreement 1 2 3 4 5 6 7 8 9 10 11 Complete disagreement

8. How much do you *disagree* with your college on important issues?
   Complete disagreement 1 2 3 4 5 6 7 8 9 10 11 Complete agreement

9. How often do you feel *out of place* at your college?
   Never 1 2 3 4 5 6 7 8 9 10 11 Most of the time

10. All in all, in terms of your own needs and desires, how *satisfied* are you with the *academic* aspects of your college?
    Completely satisfied 1 2 3 4 5 6 7 8 9 10 11 Completely dissatisfied

11. All in all, in terms of your own needs and desires, how *satisfied* are you with the *nonacademic* aspects of your college?
    Completely satisfied 1 2 3 4 5 6 7 8 9 10 11 Completely dissatisfied

12. So far, what kind of times have you had at your college?
    Great times 1 2 3 4 5 6 7 8 9 10 11 Poor times

13. Do you think that your *academic* experience at college would have been more *rewarding* if, instead of your college, you had attended another college?
    Definitely not 1 2 3 4 5 6 7 8 9 10 11 Probably

    Name of college:_____

14. Do you think that your *nonacademic* experience at college would have been more *enjoyable* if, instead of your college, you had attended another college?
    Definitely not 1 2 3 4 5 6 7 8 9 10 11 Probably

    Name of college:_____

15. To what extent do you feel that the nature of your college environment is responsible for *frustrations* you have experienced in relation to *academic* goals?
    Completely responsible 1 2 3 4 5 6 7 8 9 10 11 Not at all responsible

16. To what extent do you feel that the nature of your college environment is responsible for *frustrations* you have experienced in relation to *nonacademic* goals?
    Completely responsible 1 2 3 4 5 6 7 8 9 10 11 Not at all responsible

SELF-COLLEGE: FORM A

Discrepancy Score - Satisfaction Score Correlation Data

SCHOOL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15**	16	17	18	19	20	21	MEAN
* POPULATION	1.7	9.4	2.3	9.2	3.1	3.0	3.7	.5	8.7	13.6	1.3	7.0	9.0	5.8	3.1	2.3	3.1	1.0	13.0	19.0	1.0	
SAMPLE	57	87	121	74	49	23	87	19	76	55	48	30	9	49	183	63	62	65	64	93	79	
1 Total dropout	-.09	-.06	.39	.08	.41	.69	.29	.09	.16	.03	-.10	.26	-.36	.14	.28	.29	.00	.20	.31	.07	.42	.17
2 Acad. dropout	.10	-.07	.13	.03	.08	.13	.22	.13	.12	.00	-.12	-.13	-.33	.05	.12	.03	-.19	-.08	.20	.05	.06	.03
3 Nonac. drop.	-.04	.06	.39	.03	.33	.76	.40	.40	.31	-.02	.11	.16	.22	.34	.25	.28	.11	.11	.16	.16	.46	.24
4 Think Nonac.	-.01	.25	.36	.10	.41	.56	.35	.41	.14	.04	.24	.28	.48	.34	.32	.43	.05	.30	.15	.18	.38	.27
5 Comf. Students	.37	.35	.26	.13	.21	.42	.03	.49	.37	.08	.14	.05	.69	.38		.38	.01	-.01	.26	-.06	.38	.25
6 Similar to Fac.	.36	.22	.14	.23	.37	.53	.30	.26	.25	-.01	.24	.18	.18	.41		.26	.12	-.15	.32	.01	.32	.22
7 Agree Adm.	.15	.42	.46	.42	.55	.37	.29	.06	.33	.00	.31	.45	.08	.36		.26	.29	-.01	.29	.18	.30	.28
8 Agree College	.18	.34	.24	.11	.35	.46	.09	.21	.14	.11	.29	.28	.05	.11		.44	.10	-.08	.15	.17	.20	.20
9 Out of Place	.24	.32	.41	.09	.50	.61	.17	.63	.27	.16	.29	.29	.77	.32	.40	.37	.06	.09	.13	.10	.52	.32
10 Acad. Sat.	-.14	.27	.26	.25	.17	-.15	.36	.58	.32	.11	.38	.50	.63	.41	.10	.34	.12	-.18	.02	.09	.14	.22
11 Nonac. Sat.	.40	.25	.29	.31	.40	.59	.20	.52	.38	.38	.54	.33	.72	.28	.27	.27	.11	.37	.38	-.03	.36	.35
12 Kind of Times	.13	.18	.15	.15	.31	.44	-.01	.58	.37	.31	.31	.06	.59	.36	.24	.33	.01	.14	.22	.16	.35	.26
13 Ac. Elsewhere	.00	.34	.34	.26	.42	-.03	.48	.51	.35	.07	.50	.40	.50	.30		.57	.17	-.07	.11	.35	.20	.29
14 Nonac. Elsewhere	.36	.19	.22	.18	.35	.52	.19	.12	.26	.14	.49	.13	.59	.28	.18	.05	-.02	.29	.21	.10	.32	.25
15 Col. Ac. Resp.	.04	.35	.05	.16	.17	.51	.10	.39	.17	.21	.12	.03	.48	.35		.17	.09	.04	-.03	.04	.09	.18
16 Col. Nonac. Resp.	.09	.12	.16	.08	.13	.37	.06	.26	.09	.09	.50	.17	.64	.07		-.14	-.07	.13	.16	.05	.22	.15
MEAN	.13	.22	.27	.16	.34	.42	.22	.35	.25	.10	.26	.22	.37	.28	.24	.21	.05	.07	.19	.10	.30	.23

*Population in thousands
**Not all concepts and satisfaction items used

COLLEGE-IDEAL COLLEGE: FORM A

Discrepancy Score - Satisfaction Score Correlation Data

SCHOOL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	MEAN
* POPULATION	1.7	9.4	2.3	9.2	3.1	3.0	3.7	.5	8.7	13.6	1.3	7.0	9.0	5.8	3.1	2.3	3.1	1.0	13.0	19.0	1.0	
SAMPLE	57	87	121	74	49	23	87	19	76	55	48	30	9	49	183	63	62	65	64	93	79	
1 Total dropout	.08	-.04	.34	.12	.48	.74	.27	.40	.11	.06	-.14	.31	-.10	.24	.24	-.02	.12	.42	.04	.49		.20
2 Acad. dropout	-.06	-.10	.11	.00	.01	.09	.27	.17	-.06	-.16	-.20	.14	.03	.07	.09	-.05	-.09	.28	.08	.11		.04
3 Nonac. drop.	-.04	.08	.38	.10	.43	.76	.35	.57	.33	.02	.07	.02	.24	.42	.29	.16	.07	.31	.18	.58		.27
4 Think Nonac.	-.07	.21	.41	.12	.37	.59	.37	.52	.17	.20	.19	.23	.67	.42	.50	.13	.31	.28	.22	.53		.32
5 Comf. Students	.26	.29	.25	.10	.20	.46	.16	.41	.33	-.05	.11	.12	.38	.43	.52	-.04	.05	.39	-.07	.46		.24
6 Similar to Fac.	.53	.30	.19	.23	.24	.62	.36	.22	.25	-.13	.19	.44	.00	.44	.26	.24	.09	.41	.11	.30		.26
7 Agree Adm.	.49	.51	.54	.48	.64	.42	.41	.34	.34	.10	.44	.53	.09	.43	.32	.38	.15	.47	.27	.42		.39
8 Agree College	.43	.29	.32	.26	.34	.48	.15	.35	.14	.28	.43	.35	.23	.17	.42	.32	.00	.34	.23	.31		.30
9 Out of Place	.18	.31	.42	.16	.60	.56	.23	.45	.24	-.05	.30	.41	.75	.36	.47	.08	.18	.33	.17	.63		.34
10 Acad. Sat.	.06	.42	.33	.40	.25	.07	.43	.75	.28	.07	.51	.44	.86	.45	.49	.21	-.21	.22	.22	.27		.33
11 Nonac. Sat.	.37	.31	.38	.36	.43	.58	.27	.54	.44	.24	.43	.36	.72	.24	.38	.32	.21	.43	-.04	.52		.37
12 Kind of Times	.21	.25	.25	.28	.42	.54	.10	.34	.30	.23	.33	.24	.45	.44	.41	.15	.19	.37	.14	.49		.31
13 Ac. Elsewhere	.19	.50	.45	.40	.56	.12	.58	.25	.33	.13	.54	.41	.50	.39	.58	.27	.05	.31	.40	.39		.37
14 Nonac. Elsewhere	.17	.24	.38	.24	.47	.56	.33	.10	.34	.13	.40	.20	.52	.28	.20	.21	.32	.40	.08	.48		.30
15 Col. Ac. Resp.	.13	.42	.12	.14	.24	.42	.17	.47	.14	.14	.11	.03	.25	.56	.28	.20	.25	.04	.16	.15		.22
16 Col. Nonac. Resp.	-.04	.16	.23	.10	.40	.34	.08	.17	.08	.10	.40	.42	.39	.15	.01	.04	.28	.19	.10	.36		.20
MEAN	.17	.26	.31	.22	.38	.46	.28	.38	.24	.10	.26	.29	.37	.34	.34	.16	.12	.32	.14	.41		.28

*Population in thousands

SELF-STUDENTS: FORM A

Discrepancy Score - Satisfaction Score Correlation Data

SCHOOL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	MEAN
*POPULATION	1.7	9.4	2.3	9.2	3.1	3.0	3.7	.5	8.7	13.6	1.3	7.0	9.0	5.8	3.1	2.3	3.1	1.0	13.0	19.0	1.0	
SAMPLE	57	87	121	74	49	23	87	19	76	55	48	30	9	49	183	63	62	65	64	93	79	
1 Total dropout	-.12	.07	.28	-.02	.26	.63	.36	.39	.19	.00	-.21	-.04	-.22	.13		.20	.07	.04	.45	-.07	.38	.14
2 Acad. dropout	-.03	-.03	.02	-.12	-.10	.25	.33	.34	.18	-.05	-.13	-.05	-.22	-.04		.00	-.19	-.12	.31	-.09	.00	.00
3 Nonac. drop.	-.02	.14	.41	-.08	.30	.69	.37	.61	.28	-.04	-.09	.13	.03	.23		.19	.17	.31	.35	-.03	.47	.22
4 Think Nonac.	.02	.27	.36	.08	.14	.50	.27	.53	.18	.03	.11	.33	.46	.31		.34	.11	.42	.18	-.04	.36	.25
5 Comf. Students	.39	.39	.39	.16	.29	.48	-.04	.55	.35	.25	.37	.33	.78	.51		.39	-.02	.23	.32	-.03	.51	.33
6 Similar to Fac.	.33	.22	-.03	.30	.23	.54	.12	.22	.21	-.31	.17	.08	.32	.11		.16	.07	.04	.39	.08	.27	.18
7 Agree Adm.	.14	.39	.24	.32	.47	.49	.06	.01	.37	-.12	.21	.12	-.17	.21		.05	.16	.22	.17	.17	.30	.19
8 Agree College	.19	.27	.17	.07	.23	.48	.00	.16	.06	.00	.26	-.06	.04	.24		.31	.09	-.07	.12	.07	.27	.15
9 Out of Place	.13	.29	.54	.11	.56	.60	.06	.58	.34	.25	.44	-.01	.61	.52		.42	.02	.33	.20	.06	.53	.33
10 Acad. Sat.	-.18	.34	.24	.15	.17	-.12	.22	.58	.27	-.08	.23	.10	.65	.24		.22	.03	-.16	.23	.02	.11	.16
11 Nonac. Sat.	.44	.23	.40	.21	.28	.45	.10	.41	.29	.43	.41	.41	.53	.37		.26	.12	.42	.40	.09	.35	.33
12 Kind of Times	.13	.16	.22	.10	.38	.30	.04	.55	.36	.32	.23	.27	.43	.40		.28	.00	.29	.33	.10	.36	.26
13 Ac. Elsewhere	.01	.39	.33	.24	.38	-.01	.28	.46	.22	-.02	.40	-.08	.64	.15		.54	-.01	.19	.22	.30	.26	.24
14 Nonac. Elsewhere	.28	.25	.32	.18	.27	.30	.06	.19	.30	.25	.26	.06	.36	.29		.04	-.09	.38	.38	.11	.29	.23
15 Col. Ac. Resp.	.06	.29	-.01	.04	.05	.60	.09	.42	.14	.01	-.15	.00	.50	.14		.14	.03	.13	-.04	-.07	.01	.11
16 Col. Nonac. Resp.	.11	.09	.17	.13	.26	.29	-.04	.23	.02	.18	.27	.15	.59	.31		-.12	-.10	.24	.15	.03	.14	.16

*Population in thousands

SELF-COLLEGE: FORM B

Discrepancy Score - Satisfaction Score Correlation Data

SCHOOL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15**	16	17	18	19	20	MEAN
*POPULATION	1.7	9.4	2.3	9.2	3.1	3.0	3.7	.5	8.7	13.6	1.3	7.0	7.0	5.8	3.1	2.3	3.1	1.0	13.0	19.0	
SAMPLE	63	83	124	76	43	14	47	21	84	66	54	16	54	40	182	36	414	58	81	67	
1 Total dropout	-.05	.14	.22	.08	.37	.43	.25	.56	.15	.14	.29	.06	.18	.24	.02	.19	.20	.06	.17	.06	.19
2 Acad. dropout	.08	.06	.11	.09	.15	.06	.10	.05	.13	.09	.06	.12	.08	.10	-.02	.03	.05	-.11	.12	.12	.07
3 Nonac. drop.	-.09	.08	.31	.10	.34	.02	.33	.59	.12	.27	.38	.21	.35	.50	.12	.24	.25	.01	.16	.21	.23
4 Think Nonac.	.11	.31	.41	.19	.29	.11	.30	.66	.34	.27	.41	.36	.49	.37	.30	.43	.29	.16	.05	.15	.33
5 Comf. Students	.23	.27	.46	.28	.29	.65	.38	.21	.31	.36	.45	.08	.31	.40		.07	.21	.10	.21	.01	.28
6 Similar to Fac.	.25	.26	.23	.39	.06	.14	.46	.23	.39	.46	.55	-.42	.26	.23		.42	.36	.22	.33	.32	.27
7 Agree Adm.	.05	.22	.48	.36	.21	.70	.47	.38	.33	.65	.39	.00	.29	.35		.60	.37	.25	.29	.07	.34
8 Agree College	.15	.04	.40	.35	.19	.74	.29	.26	-.03	.49	.24	.60	.23	.35		.46	.29	.07	.09	.10	.30
9 Out of Place	.42	.30	.40	.41	.51	.41	.45	.13	.38	.39	.46	.17	.30	.40	.46	.22	.26	.21	.21	.15	.33
10 Acad. Sat.	.00	.25	.34	.04	.10	.65	.45	.60	.38	.35	.46	.65	-.03	.14	.20	.31	.28	.27	.13	.22	.29
11 Nonac. Sat.	.20	.19	.34	.38	.47	-.08	.48	.27	.30	.29	.48	.30	.13	.35	.39	.60	.22	.31	.14	.24	.30
12 Kind of Times	-.11	.35	.22	.26	.32	.68	.45	.47	.20	.22	.47	.16	.15	.34	.36	.25	.23	.25	.11	.16	.28
13 Ac. Elsewhere	-.10	.37	.45	.17	.43	.31	.51	.40	.30	.48	.41	.51	.31	.39		.58	.31	.35	.16	.35	.35
14 Nonac. Elsewhere	.16	.23	.36	.25	.16	.40	.29	.23	.05	.19	.39	.47	.17	.33	.25	.25	.24	.53	.21	.21	.27
15 Col. Ac. Resp.	-.06	.30	.13	.25	.11	.26	.50	.12	.14	.28	.19	.28	.03	.15		.25	.10	.31	.01	-.02	.18
16 Col. Nonac. Resp.	-.06	.07	.29	.12	.24	.33	-.05	-.12	.11	.17	.26	-.05	.17	.57		.31	.11	.32	-.09	-.09	.13
MEAN	.08	.22	.52	.23	.27	.40	.35	.32	.23	.32	.36	.22	.21	.33	.23	.33	.24	.21	.14	.14	.27

*Population in thousands

**Not all concepts and satisfaction items used

COLLEGE-IDEAL COLLEGE: FORM B

Discrepancy Score - Satisfaction Score Correlation Data

SCHOOL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	MEAN
*POPULATION	1.7	9.4	2.3	9.2	3.1	3.0	3.7	.5	8.7	13.6	1.3	7.0	7.0	5.8	3.1	2.3	3.1	1.0	13.0	19.0	
SAMPLE	63	83	124	76	43	14	47	21	84	66	54	16	54	40	182	36	414	58	81	67	
1 Total dropout	-.04	.17	.18	.05	.38	.48	.13	.65	.11	.12	.25	.22	.15	.23		.16	.21	.18	.15	.02	.20
2 Acad. dropout	.01	.21	.11	.11	.16	.20	-.10	.32	.10	.07	.01	.27	.08	.16		.01	.05	-.06	.11	.06	.10
3 Nonac. drop.	-.05	.01	.29	.03	.32	.00	.39	.69	.12	.17	.32	.15	.20	.29		.26	.27	.18	.19	.16	.21
4 Think Nonac.	.09	.22	.43	.11	.51	.78	.38	.49	.33	.26	.36	.48	.33	.40		.39	.29	.31	.00	.18	.33
5 Comf. Students	.02	.23	.41	.30	.14	.67	.37	.00	.35	.28	.43	.23	.46	.43		.17	.25	.28	.25	.20	.29
6 Similar to Fac.	.17	.45	.19	.37	.16	.25	.12	.24	.45	.47	.53	-.52	.29	.25		.29	.41	.37	.34	.43	.29
7 Agree Adm.	.07	.36	.53	.39	.56	.77	.57	.51	.33	.69	.53	.03	.38	.44		.72	.47	.43	.40	.22	.44
8 Agree College	.00	.01	.44	.46	.26	.68	.34	.23	.09	.53	.31	.73	.36	.39		.54	.33	.30	.08	.25	.33
9 Out of Place	.27	.35	.46	.38	.21	.39	.46	.09	.42	.42	.49	.44	.30	.29		.12	.29	.35	.27	.27	.33
10 Acad. Sat.	.08	.41	.39	.24	.18	.72	.60	.69	.40	.38	.57	.73	-.06	.35		.22	.36	.34	.27	.40	.38
11 Nonac. Sat.	.16	.26	.34	.30	.34	.03	.50	.33	.33	.26	.51	.46	.22	.36		.62	.30	.29	.19	.38	.33
12 Kind of Times	-.11	.48	.26	.41	.04	.67	.58	.42	.25	.26	.48	.38	.24	.36		.17	.33	.34	.12	.30	.31
13 Ac. Elsewhere	.01	.51	.46	.30	.23	.40	.67	.50	.24	.50	.55	.47	.23	.50		.64	.37	.34	.20	.36	.39
14 Nonac. Elsewhere	.24	.33	.36	.26	.42	.53	.43	.15	.14	.29	.43	.56	.44	.37		.24	.31	.41	.19	.35	.34
15 Col. Ac. Resp.	-.06	.34	.16	.29	.25	.25	.57	.23	.23	.24	.29	.39	.04	.35		.21	.15	.32	.00	.20	.23
16 Col. Nonac. Resp.	.03	.11	.33	.15	.20	.25	.03	-.11	.17	-.19	.43	.06	.37	.56		.39	.17	.36	-.01	.09	.20
MEAN	.06	.28	.33	.26	.27	.42	.40	.34	.25	.32	.41	.32	.25	.36		.32	.29	.30	.17	.24	.29

*Population in thousands

SELF-STUDENTS: FORM B

Discrepancy Score - Satisfaction Score Correlation Data

SCHOOL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	MEAN
*POPULATION	1.7	9.4	2.3	9.2	3.1	3.0	3.7	.5	8.7	13.6	1.3	7.0	7.0	5.8	3.1	2.3	3.1	1.0	13.0	19.0	
SAMPLE	63	83	124	76	43	14	47	21	84	66	54	16	54	40	182	36	414	58	81	67	
1 Total dropout	-.02	.08	.17	.07	.33	.57	.02	.70	.17	.02	.11	-.10	.19	.17		.16	.15	.20	.09	-.11	.16
2 Acad. dropout	.11	-.04	.04	-.05	.12	.34	-.02	-.14	.10	-.08	-.17	-.11	.09	.02		.06	.00	.00	-.04	-.06	.01
3 Nonac. drop.	-.06	.04	.30	.11	.25	-.04	.23	.55	.20	.12	.21	.47	.38	.40		.20	.17	.21	.14	.17	.21
4 Think Nonac.	.13	.28	.35	.17	.17	.86	.19	.50	.40	.25	.33	.59	.47	.40		.30	.20	.30	.00	.06	.31
5 Comf. Students	.15	.28	.52	.46	.33	.80	.58	.32	.31	.37	.43	-.11	.46	.45		.37	.27	.29	.25	.11	.35
6 Similar to Fac.	.13	.30	.12	.34	-.02	.22	.49	.29	.36	.48	.47	-.37	.26	.32		.52	.28	.22	.21	.45	.27
7 Agree Adm.	-.03	.10	.40	.19	.19	.71	.49	.45	.33	.52	.18	-.10	.40	.36		.49	.25	.23	.15	.20	.29
8 Agree College	.03	-.09	.36	.28	.15	.69	.04	.35	.02	.38	.14	.40	.19	.30		.48	.17	.25	.01	.18	.23
9 Out of Place	.36	.39	.49	.33	.54	.66	.41	.11	.30	.42	.39	.10	.39	.34		.44	.31	.23	.23	.14	.35
10 Acad. Sat.	-.03	.20	.30	.14	.08	.60	.33	.56	.35	.34	.35	.57	.07	.22		.26	.22	.19	.10	.14	.26
11 Nonac. Sat.	.23	.11	.37	.28	.41	-.05	.37	.27	.29	.34	.43	.06	.32	.29		.57	.20	.17	.15	.14	.26
12 Kind of Times	-.15	.27	.26	.36	.31	.45	.45	.61	.18	.31	.41	.12	.35	.29		.32	.23	.33	.16	.06	.28
13 Ac. Elsewhere	-.11	.30	.49	.04	.32	.40	.42	.43	.16	.38	.37	.66	.39	.28		.55	.21	.41	.12	.39	.33
14 Nonac. Elsewhere	.23	.19	.36	.18	.07	.30	.24	.16	.08	.15	.39	.25	.38	.31		.21	.17	.41	.21	.21	.24
15 Col. Ac. Resp.	.05	.30	.10	.27	.08	.34	.45	.07	.13	.15	.17	.29	.12	.20		.23	.14	.16	.17	.11	.19
16 Col. Nonac. Resp.	.06	.14	.26	.10	.13	.15	-.05	-.06	.13	.19	.20	.04	.32	.50		.34	.08	.11	.11	.01	.15

*Population in thousands

Two Discrepancy Scores Correlated with Three Satisfaction Items

SELF-FACULTY: FORM A

SCHOOL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Mean
SELF-FAC.																						
#5 Comf. Students	.05	.07	.12	.09	.20	.33	-.12	.32	.35	.17	.20	-.01	.83	.19		.18	-.03	-.08	-.02	-.14	.37	.15
#6 Similar to Fac.	.38	.30	.34	.33	.37	.38	.43	.14	.37	-.10	.27	.03	.58	.49		.23	.07	.06	.32	.18	.48	.28
#7 Agree Adm.	.34	.33	.16	.40	.48	.29	.18	.36	.39	-.17	.38	.54	-.33	.27		.06	.26	-.08	.23	.09	.22	.22

SELF-ADMINISTRATION: FORM A

#8A - SELF-ADM.																						
#5 Comf. Students	.15	.15	.09	.06	.18	.47	.03	.23	.20	.06	.14	.17	.10	.19		.25	-.13	-.05	.01	-.19	.43	.13
#6 Similar to Fac.	.36	.10	.00	.19	.32	.50	.19	.06	.20	-.11	.20	.25	-.24	.24		.29	.09	-.33	.19	.03	.34	.14
#7 Agree Adm.	.39	.42	.47	.52	.72	.39	.33	.34	.33	.03	.55	.50	.26	.42		.43	.44	-.11	.38	.22	.31	.37

SELF-FACULTY: FORM B

#7B - Self-Faculty																						
#5 Comf. Students	-.07	.15	.31	.29	.21	.77	.18	.31	.25	.30	.37	-.04	.16	.23		.26	.10	.12	.16	-.16		.21
#6 Similar to Fac.	.46	.35	.40	.48	.07	.30	.61	.38	.52	.46	.51	-.26	.27	.49		.60	.38	.15	.53	.40		.37
#7 Agree Adm.	.34	.16	.34	.24	.37	.70	.36	.55	.29	.52	.15	-.12	.19	.20		.26	.37	.08	.25	.08		.28

SELF-ADMINISTRATION: FORM B

#8B Self-Adm.																						
#5 Comf. Students	-.02	.07	.30	.25	.04	.54	.33	.32	.22	.21	.38	-.17	.11	.23		.00	.14	.21	.16	-.13		.17
#6 Similar to Fac.	.37	.40	.23	.34	.01	.38	.60	.27	.47	.45	.41	-.13	.13	.29		.26	.35	.19	.32	.41		.30
#7 Agree Adm.	.32	.24	.56	.36	.48	.79	.58	.47	.50	.51	.50	.32	.33	.34		.63	.40	.34	.39	.34		.44

MEAN DISCREPANCY: FORM A

SCHOOL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
POPULATION	1.7	9.4	2.3	9.2	3.1	3.0	3.7	.5	8.7	13.6	1.3	7.0	9.0	5.8	3.1	2.3	3.1	1.0	13.0	19.0	1.0
SAMPLE	57	87	121	74	49	23	87	19	76	55	48	30	9	49	183	63	62	65	64	93	79
A																					
1 Self-Col.	116.5	161.7	138.6	143.1	136.5	149.8	144.6	118.4	138.2	147.8	147.3	152.0	134.4	138.4		139.5	116.3	130.5	123.0	142.3	134.9
2 Col-Stud.	80.6	113.8	100.0	114.8	96.5	100.1	113.7	80.2	103.5	109.4	119.1	124.4	89.6	103.4		93.5	99.0	93.3	106.5	108.2	96.8
5 Col-Id. Col.	91.1	169.8	143.1	147.9	129.9	143.5	152.5	99.3	133.0	147.1	146.7	145.6	124.8	133.1		133.1	115.6	118.5	109.9	123.6	119.3
6 Self-Stud.	116.6	148.7	130.4	132.9	133.7	142.7	136.3	113.2	127.6	128.2	128.2	143.1	123.3	128.3		135.6	103.8	117.5	114.8	133.1	131.1
7 Self-Fac.	112.5	153.7	120.2	130.7	117.4	141.7	128.8	113.1	137.9	137.0	129.5	154.0	127.9	123.8		130.7	121.0	124.0	134.5	143.8	128.0
8 Self-Adm.	115.9	174.3	147.9	148.5	138.0	143.7	159.6	120.4	143.5	155.9	160.2	155.4	139.3	146.5		147.3	121.0	121.8	130.3	146.0	135.0
10 Stud-Fac.	91.2	118.8	114.8	107.8	110.9	99.7	115.4	82.9	112.6	115.8	105.8	141.3	96.3	106.8		102.3	100.2	96.7	117.2	118.1	106.4
11 Stud-Adm.	105.6	139.8	117.4	116.9	117.7	104.8	131.2	95.8	115.0	124.5	132.9	131.8	102.4	110.5		113.4	103.3	101.0	116.5	118.0	106.5

MEAN DISCREPANCY: FORM B

SCHOOL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
POPULATION	1.7	9.4	2.3	9.2	3.1	3.0	3.7	.5	8.7	13.6	1.3	7.0	7.0	5.8	3.1	2.3	3.1	1.0	13.0	19.0
SAMPLE	63	83	124	76	43	14	47	21	84	66	54	16	54	40	182	36	414	58	81	67
B																				
1 Self-Col.	116.7	156.0	135.3	126.6	109.5	151.4	139.0	120.9	125.1	133.5	134.4	138.6	119.4	136.8		120.6	113.9	129.1	121.3	119.8
2 Col-Stud.	79.9	115.2	94.8	109.0	76.1	99.4	106.3	91.0	99.1	98.0	96.5	108.8	103.5	98.3		80.2	97.8	90.9	107.1	98.2
5 Col-Id. Col.	102.4	169.8	141.0	128.4	97.6	157.6	145.5	109.0	123.3	135.2	139.2	137.0	117.1	129.1		117.1	116.1	123.1	120.3	111.0
6 Self-Stud.	117.9	148.7	135.8	129.6	99.0	152.2	131.1	120.1	121.2	122.0	131.4	136.4	115.9	129.9		124.0	102.5	115.6	116.8	117.0
7 Self-Fac.	102.5	153.9	124.8	123.6	105.1	152.3	128.1	110.9	124.7	121.0	126.4	138.6	122.8	124.5		111.6	116.0	117.0	121.5	123.4
8 Self-Adm.	106.8	164.5	145.3	142.0	122.4	153.5	159.3	127.4	134.9	143.1	149.5	130.8	132.5	135.7		136.5	118.4	125.3	117.9	127.5
10 Stud-Fac.	111.3	118.9	115.4	109.7	97.9	104.8	118.0	91.6	109.3	105.2	100.2	110.6	116.3	100.1		90.8	100.5	98.7	113.0	113.6
11 Stud-Adm.	126.5	130.6	115.2	130.6	113.6	120.6	138.7	107.5	124.5	121.0	117.0	117.0	124.4	114.2		103.0	107.2	101.6	124.7	123.4